WHAT IS CLAIMED IS:

1.     A method for processing a transport stream, the method comprising:

(a) parsing the transport stream to derive multiple elementary substreams, each elementary substream including a received media access control (MAC) address; and

(b) comparing in hardware the received MAC address of a particular elementary substream against a plurality of stored MAC addresses.

2.     The method according to claim 1, the method further comprising:

(a) parsing the transport stream to derive multiple data streams including associated program identifiers, each such data stream being associated with a plurality of the multiple elementary substreams;

(b) using the associated program identifiers and MAC addresses to determine corresponding transfer locations in a host memory; and

(c) performing direct memory access transfers of the multiple data streams and multiple elementary substreams to the corresponding transfer locations in the host memory.

3.     The method according to claim 2, the method further comprising transferring the multiple data streams and multiple elementary substreams to an end user system.

4.     The method according to claim 3 wherein the end user system comprises an audio-visual system and the step of transferring the multiple data streams and multiple elementary substreams is performed through an audio-visual interface.

5.     The method according to claim 3 wherein the end user system comprises a networked computer system and the step of transferring the multiple data streams and multiple elementary substreams is performed through a network interface.

6.     The method according to claim 5 wherein the end user system further comprises a world wide web browser.

1        7.     The method according to claim 2, the method further comprising

2 the step of filtering out unwanted elementary substreams associated with a particular data

3 stream.

1        8.     The method according to claim 1 wherein each of the stored MAC

2 addresses is concatenated with an index and a disable bit.

1        9.     The method according to claim 8 wherein the step of comparing in

2 hardware the received MAC address of a particular elementary substream comprises:

3        (a) masking a plurality of bits of the received MAC address; and

4        (b) iteratively comparing each of the unmasked bits of the received MAC

5 address against the corresponding unmasked bits of each of the plurality of stored MAC

6 addresses until a match is found.

1       10.     The method according to claim 8 wherein the received MAC

2 address comprises 48 bits and each of the stored MAC addresses comprises 48 bits.

1       11.     A system for receiving and processing a transport stream, the

2 system comprising:

3        (a) a receiver configured to derive multiple elementary substreams, each

4 elementary substream including a received media access control (MAC) address; and

5        (b) a hardware comparison engine within the receiver, the hardware

6 comparison engine being configured to compare the received MAC address of a particular

7 data stream against a plurality of stored MAC addresses.

1       12.     The system according to claim 11, the system further comprising a

2 direct memory access (DMA) transfer engine within the receiver, wherein the receiver is

3 further configured to derive multiple data steams and associated program identifiers from

4 the transport stream, each such data stream being associated with a plurality of the

5 multiple elementary substreams, and wherein the DMA transfer engine is configure to

6 initiate DMA transfers of the multiple data streams and multiple elementary substreams to

7 the corresponding transfer locations in a host memory.

1　　　　13.　　The system according to claim 12, the system further comprising
2　　an interface connected to the receiver configured to transfer the multiple data streams and
3　　multiple elementary substreams to an end user system.

1　　　　14.　　The system according to claim 13 wherein the end user system
2　　comprises an audio-visual system and interface comprises an audio-visual interface.

1　　　　15.　　The system according to claim 13 wherein the end user system
2　　comprises a networked computer system and the interface comprises a network interface.

1　　　　16.　　The system according to claim 15 wherein the end user system
2　　further comprises a world wide web browser.

1　　　　17.　　The system according to claim 2 wherein the hardware comparison
2　　engine is further configured to filter out unwanted elementary substreams associated with
3　　a particular data stream.

1　　　　18.　　The system according to claim 11 wherein each of the stored MAC
2　　addresses is concatenated with an index and a disable bit.

1　　　　19.　　The system according to claim 18 wherein the hardware
2　　comparison engine is configured to compare the received MAC address of a particular
3　　elementary substream against the plurality of stored MAC addresses by:
4　　　　　　　(a)  masking a plurality of bits of the received MAC address; and
5　　　　　　　(b)  iteratively comparing each of the unmasked bits of the received MAC
6　　address against the corresponding unmasked bits of each of the plurality of stored MAC
7　　addresses until a match is found.

1　　　　20.　　The system according to claim 18 wherein the received MAC
2　　address comprises 48 bits and each of the stored MAC addresses comprises 48 bits.